

6/02

DART AEROSPACE LTD	Work Order:	24478
Description: 205 Step (Standard Height)	Part Number:	D205-633-011
Dwg:	Qty:	10

Step	Location	Procedure	By	Date	Qty																																																																																			
1	DC	Issue Travellers for: D205-633-011 205 Step (Std. Height) D2563 Step Weldment Ass'y	Batch 24478 24478	05.10.12	10																																																																																			
2	DC	Photocopy blue file and create labels per PPP D205-633-011 CHG001	UK 52	06-01-02	10																																																																																			
3	PK	Pick: Packing Kit <table><thead><tr><th>Qty</th><th>Part Number</th><th>Description</th><th>Batch</th></tr></thead><tbody><tr><td>1</td><td>D2021-101</td><td>Eyebolt</td><td>9 B 2015111 B 23483</td></tr><tr><td>2</td><td>D2022-101</td><td>Spacer</td><td>B 23396</td></tr><tr><td>2</td><td>D2022-103</td><td>Spacer</td><td>B 24271</td></tr><tr><td>1</td><td>D2562-001</td><td>Strut</td><td>B 23379 B 24272</td></tr><tr><td>1</td><td>D2565-101</td><td>Strut</td><td>B 23182</td></tr><tr><td>1</td><td>D2565-103</td><td>Strut</td><td>B 24274</td></tr><tr><td>1</td><td>D2565-105</td><td>Strut</td><td>B 23187</td></tr><tr><td>1</td><td>D2565-107</td><td>Strut</td><td>B 24276</td></tr><tr><td>1</td><td>D2565-109</td><td>Strut</td><td>6 B 23186 / 4 B 24277</td></tr><tr><td>1</td><td>D2565-111</td><td>Strut</td><td>9 m B 24278 1 m B 23187</td></tr><tr><td>2</td><td>AN4-5A</td><td>Bolt</td><td>m 18729</td></tr><tr><td>2</td><td>AN4-6A</td><td>Bolt</td><td>8 m 13735 / 12 m 16867</td></tr><tr><td>2</td><td>AN4-7A</td><td>Bolt</td><td>m 18310</td></tr><tr><td>1</td><td>AN4-14A</td><td>Bolt</td><td>m 15672</td></tr><tr><td>1</td><td>AN5-6A</td><td>Bolt</td><td>m 13441</td></tr><tr><td>1</td><td>AN5-14A</td><td>Bolt</td><td>4 m 11921 / 6 m 17566</td></tr><tr><td>15</td><td>AN960JD416</td><td>Washer</td><td>15 m 17566 / 135 m 18136</td></tr><tr><td>4</td><td>AN960JD516</td><td>Washer</td><td>m 17614</td></tr><tr><td>8</td><td>MS21042L4</td><td>Nut</td><td>m 17997</td></tr><tr><td>2</td><td>MS21042L5</td><td>Nut</td><td>m 17653</td></tr></tbody></table>	Qty	Part Number	Description	Batch	1	D2021-101	Eyebolt	9 B 2015111 B 23483	2	D2022-101	Spacer	B 23396	2	D2022-103	Spacer	B 24271	1	D2562-001	Strut	B 23379 B 24272	1	D2565-101	Strut	B 23182	1	D2565-103	Strut	B 24274	1	D2565-105	Strut	B 23187	1	D2565-107	Strut	B 24276	1	D2565-109	Strut	6 B 23186 / 4 B 24277	1	D2565-111	Strut	9 m B 24278 1 m B 23187	2	AN4-5A	Bolt	m 18729	2	AN4-6A	Bolt	8 m 13735 / 12 m 16867	2	AN4-7A	Bolt	m 18310	1	AN4-14A	Bolt	m 15672	1	AN5-6A	Bolt	m 13441	1	AN5-14A	Bolt	4 m 11921 / 6 m 17566	15	AN960JD416	Washer	15 m 17566 / 135 m 18136	4	AN960JD516	Washer	m 17614	8	MS21042L4	Nut	m 17997	2	MS21042L5	Nut	m 17653	CL 25/11/28	10
Qty	Part Number	Description	Batch																																																																																					
1	D2021-101	Eyebolt	9 B 2015111 B 23483																																																																																					
2	D2022-101	Spacer	B 23396																																																																																					
2	D2022-103	Spacer	B 24271																																																																																					
1	D2562-001	Strut	B 23379 B 24272																																																																																					
1	D2565-101	Strut	B 23182																																																																																					
1	D2565-103	Strut	B 24274																																																																																					
1	D2565-105	Strut	B 23187																																																																																					
1	D2565-107	Strut	B 24276																																																																																					
1	D2565-109	Strut	6 B 23186 / 4 B 24277																																																																																					
1	D2565-111	Strut	9 m B 24278 1 m B 23187																																																																																					
2	AN4-5A	Bolt	m 18729																																																																																					
2	AN4-6A	Bolt	8 m 13735 / 12 m 16867																																																																																					
2	AN4-7A	Bolt	m 18310																																																																																					
1	AN4-14A	Bolt	m 15672																																																																																					
1	AN5-6A	Bolt	m 13441																																																																																					
1	AN5-14A	Bolt	4 m 11921 / 6 m 17566																																																																																					
15	AN960JD416	Washer	15 m 17566 / 135 m 18136																																																																																					
4	AN960JD516	Washer	m 17614																																																																																					
8	MS21042L4	Nut	m 17997																																																																																					
2	MS21042L5	Nut	m 17653																																																																																					
4	PK	Pick: <table><thead><tr><th>Qty</th><th>Part Number</th><th>Description</th><th>Batch</th></tr></thead><tbody><tr><td>1</td><td>D2563</td><td>Weldment Ass'y</td><td>B 24478</td></tr></tbody></table>	Qty	Part Number	Description	Batch	1	D2563	Weldment Ass'y	B 24478	CL 06/01/25	10																																																																												
Qty	Part Number	Description	Batch																																																																																					
1	D2563	Weldment Ass'y	B 24478																																																																																					
5	QC4	Inspect 100% Kit for Completeness		06/01/25	10																																																																																			
6	PK	Identify and pack for shipping as per PPP D205-633-011		06/01/25	10																																																																																			
7	AC	Cost / part		06-01-26	10																																																																																			
8	DC	Close work Order and Ensure Travellers Attached Inspect Level 21 Travellers: D205-633-011 D2563		06/01/26	10																																																																																			

Rev	Date	Change	Revised By	Approved
A	97.03.05			
B	99.02.18	Re-format	DM	
C	00.03.27	Add reference to PPP	EC	
D	01.04.03	Added D3010 to pick list	EC	
E	01.04.09	Incorporated D2563 step	EC	
F	02.07.11	Reformat; Removed D3010 from Step 3	RF	

RELEASED
02/05/02 RF

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: ☒ Date: 06/11/26

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

Job Costing Report

Dart Aerospace Ltd.
Hawkesbury

Oct 11, 2005
07:41 am

Work Order No : 0024478
Project Name : *D205-633-011
Project For : WK602
Work Order Type : Main
Main WO Number :
House Part Number : *D205-633-011
Description : Heli-Access-Step
Manufactured : Yes
Amount Req'd : 10
Amount Done : 0
Start Date : 10-08-05
Est Finish Date : 01-15-06
Act Finish Date :
Drawings Req'd : No
Ok for Approval :
Approval Rec'd :

Department Code:
Burden Flags : NNNNNNNN
WO Status : Open
Invoice State : Not Invoiced
Invoice Date :
Invoice Number :
Invoice Amount : 0.00

Order Entry No :
OE Value : 0.00

Est Mark Up : 0.000%
Actual Mark Up : 0.000%

\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To, Post
Material Cost :	0.00	0.00	0.00	0.00	0.00
Engineering Hours :	0.00	0.00	0.00		
Engineering Cost :	0.00	0.00	0.00	0.00	0.00
Production Hours :	0.00	0.00	0.00		
Production Cost :	0.00	0.00	0.00	0.00	0.00
Packaging Hours :	0.00	0.00	0.00		
Packaging Cost :	0.00	0.00	0.00	0.00	0.00
OverHead Hours :	0.00	0.00	0.00		
OverHead Cost :	0.00	0.00	0.00	0.00	0.00
CNC Hours :	0.00	0.00	0.00		
CNC :	0.00	0.00	0.00	0.00	0.00
Misc. Hours :	0.00	0.00	0.00		
Misc. :	0.00	0.00	0.00	0.00	0.00
Burden :	0.00	0.00	0.00		
Total Cost :	0.00	0.00	0.00		
Mark up :	0.000	0.000			
Selling Cost :	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done :	0.00	0.00
Profits/(Loss) :	0.00	0.00

Job Costing Report

Dart Aerospace Ltd.
Hawkesbury

Nov 08, 2005
12:19 pm

Work Order No : 0024478
Project Name : *D205-633-011
Project For : WK602
Work Order Type : Main
Main WO Number :
House Part Number : *D205-633-011
Description : Heli-Access-Step
Manufactured : Yes
Amount Req'd : 10
Amount Done : 0
Start Date : 10-08-05
Est Finish Date : 01-15-06
Act Finish Date :
Drawings Req'd : No
Ok for Approval :
Approval Rec'd :

Department Code:
Burden Flags : NNNNNNNN
WO Status : Open
Invoice State : Not Invoiced
Invoice Date :
Invoice Number :
Invoice Amount : 0.00
Order Entry No :
OE Value : 0.00
Est Margin : 0.000%
Actual Margin : 0.000%
\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost :	0.00	0.00	0.00	0.00	0.00
Engineering Hours :	0.00	0.00	0.00		
Engineering Cost :	0.00	0.00	0.00	0.00	0.00
Production Hours :	0.00	0.00	0.00		
Production Cost :	0.00	0.00	0.00	0.00	0.00
Packaging Hours :	0.00	0.00	0.00		
Packaging Cost :	0.00	0.00	0.00	0.00	0.00
OverHead Hours :	0.00	0.00	0.00		
OverHead Cost :	0.00	0.00	0.00	0.00	0.00
CNC Hours :	0.00	0.00	0.00		
CNC :	0.00	0.00	0.00	0.00	0.00
Misc. Hours :	0.00	0.00	0.00		
Misc. :	0.00	0.00	0.00	0.00	0.00
Burden :	0.00	0.00	0.00		
Total Cost :	0.00	0.00	0.00		
Margin :	0.000	0.000			
Selling Cost :	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done :	0.00	0.00
Profits/(Loss) :	0.00	0.00

Mis 0/15
11-11

Date: Sunday, 11/6/2005 3:06:42 PM
 User: Linda Lacelle

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : 205 STEP(STANDARD HEIGHT)
 Job Number : 24478
 Estimate Number : 10180
 P.O. Number : Part Number : D205633011
 This Issue : 11/6/2005 S.O. No. : Drawing Number : N/A
 Prsht Rev. : NC Project Number :
 First Issue : / / Type : LARGE FAB ASSY Drawing Revision : N/A
 Previous Run : 24254 Material :
 Written By : Due Date : 11/30/2005 Qty: 10 Um: Each
 Checked & Approved By :
 Comment : Est Rev:F 02.07.11 Reformat; Removed D3010 RF

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 24478A STEP WELDMENT



Comment: Sub-Component STEP WELDMENT

2.0 DC DOCUMENT CONTROL



Comment: DOCUMENT CONTROL
 Photocopy bluefile & type labels per PPP205-633-011 CHG001

3.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1
 Pick Packing Kit

4.0 D2021101 Eyebolt

5.0 D2022101 Spacer

6.0 D2022103 Spacer

7.0 D2562001 Strut

8.0 D2565101 Strut

9.0 D2565103 Strut

10.0 D2565105 Strut

11.0 D2565107 Strut

12.0 D2565109 Strut

13.0 D2565111 Strut

14.0 AN45A Bolt

15.0 AN46A Bolt

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 205 STEP(STANDARD HEIGHT)

Job Number: 24478

Part Number: D205633011

Job Number:



Seq. #:	Machine Or Operation:	Description :
16.0	AN47A	Bolt
17.0	AN414A	Bolt
18.0	AN56A	Bolt
19.0	AN514A	Bolt
20.0	AN960JD416	Washer
21.0	AN960JD516	Washer
22.0	MS21042L4	Nut
23.0	MS21042L5	Nut
24.0	D2563	Step Weldment Assembly
25.0	QC4	INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

26.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D205-633-011

Location: _____

27.0 DC DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

Job Completion



6/02

DART AEROSPACE LTD	Work Order:	24478
Description: Step Weldment Ass'y	Part Number:	D2563
Drawing: D2563 Rev. B	Qty:	10

RF 03.08.11

of 11-11

Step	Location	Procedure	By	Date	Qty
1	DC	Issue Traveller <i>Dwg not required</i>	PE	05.10.12	10
2	WA	Cut D2244 to 89.70" at 34° as per Dwg D2563 Batch: <i>320457</i>	PE	05.11.16	10
3	WA	Deburr ends	PE	05.11.16	10
4	QC5 WA	Inspect for foreign object per QSI 024	PE	05.11.16	10
5	WA	Pick: NA <i>Aluminum Rod M18838/M15684</i> Qty Part No. Description <i>3PS</i> Batch 2 D2673-34 End Cap <i>↑</i> <i>323231</i> 2 D2561 Lug Plate <i>323174 - 323405 #12</i> 2 D2564 Mounting Angle <i>323452</i>	PE	05.11.17	10
6	WA	Weld as per Dwg D2563 using DT 8343 <i>Lug plates and End cap only</i>	PE	05.11.17	10
7	WA	Grind	PE	05.11.17	10
8A	QC9 & 5	Inspect Welding and work to Step 7	PE	05/11/23	10
9	FP	Powder Coat White (Ref. 4.3.5.1) per Dart QSI 005 4.3	MI	06 01 24	10
10	QC3	Inspect Powder Coat	MI	06 01 25	10
11	FP	Wing Walk as per Dwg D2563 and QSI 005 4.4	MI	06 01 25	10
12	QC3	Inspect Wing Walk	PE	6/1/25	10
13	FP	To KP for packing	CL	06/01/25	10

Rev	Date	Change	Revised By	Approved
A	97.01.14	New Issue		
B	98.05.21	Updated end plate, added steps 8-10	KB	
C	99.02.10	Added Drawing Rev	DM	
D	99.05.06	Moved Insp. Level 9, Re-format	DM	
E	00.05.08	Removed P/O for powder coating	EC	
F	00.07.20	Added inspection for QSI 024	EC	
G	02.07.31	Re-format Location	RF <i>RF</i>	<i>JS</i>

RELEASED
02/08/02 RF

Dart Aerospace

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector	
05-11-16	6	Weld only one end cap, then grind flush. Then Alodine step ^{add 1st before sliding} as per QSI 005 4.1. Then finish welding other end cap, grind flush, and Alodine last end cap. permanent change <i>[Signature]</i> ^{add 2nd Alodine per other steps}	[Signature]	05-11-16	10	[Signature]	<i>[Signature]</i> 05-11-16	
05-11-23	8b	chemical conversion coat per QSI 005	FC	05-11-21	10	<i>[Signature]</i>		
"	8c	Weld aft cap, bevel, grind per Dwg 02563	<i>[Signature]</i>	05-11-23	10	<i>[Signature]</i>		
"	8d	QCS/QC9				<i>[Signature]</i>		
"	8E	Touch up alodine				<i>[Signature]</i>		

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			
	8b	3 steps fell over while drying after Alodine. Marks found on endcaps on 2 steps, and a small knick on lug plate on the 3rd step. All marks are under .005" deep.	[Signature] QSIU7	Buff out and touch-up weld as necessary on endcaps, and buff out mark on lug plate, buff weld smooth. Inspect weld @ .005" and work to steps. touch Re-Alodine as necessary as per QSI 005 4.1	[Signature] 05-12-06 QC9/5 [Signature]	[Signature] 05-12-06	[Signature] QSIU7	[Signature] 05-12-06

Part No: _____ PAR #: _____ Fault Category: _____

NCR: Yes ☒ No ☐ DQA: ☒ Date: 06/01/2016

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

Date: Sunday, 11/6/2005 3:06:48 PM
 User: Linda Lacelle

Process Sheet

Customer :	CU-DAR001 Dart Helicopters Services	Drawing Name :	STEP WELDMENT	
Job Number :	24478A			
Estimate Number :	10176			
P.O. Number :		Part Number :	D2563	
This Issue :	11/6/2005	S.O. No. :		
Prsht Rev. :	NC	Drawing Number :	D2563 REV B	
First Issue :	/ /	Project Number :		
Previous Run :	24254A	Drawing Revision :	B	
Written By :		Material :		
Checked & Approved By :		Due Date :	11/30/2005	Qty: 10 Um: Each
Comment :	Est Rev:G 02.07.31 Re-format Location RF			

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
1.0	D2244116	Step Extrusion
2.0	D267334	End Plate
3.0	D2561	Lug Plate
4.0	D2564	Mounting Angle
5.0	LARGE FAB 1	LARGE FABRICATION RESOURCE 1
Comment: LARGE FABRICATION RESOURCE 1 1-Cut D2244 to 89.70" at 34° as per Dwg D2563 2-Deburr ends 3-Inspect for foreign object per QSI 024 4-Weld as per Dwg D2563 using DT 8343 5-Grind		
6.0	QC5/9	WELD INSPECTION
Comment: WELD INSPECTION		
7.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
Comment: HAND FINISHING RESOURCE #1 Chemical Conversion Coat as per QSI 005 4.1		

Date: Sunday, 11/6/2005 3:06:48 PM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: STEP WELDMENT

Job Number: 24478A

Part Number: D2563

Job Number:



Seq. #:

Machine Or Operation:

Description :

8.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

9.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Wing Walk as per Dwg D2563 and QSI 005 4.4

10.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

11.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

Job Completion

